Most of us have heard of osteoporosis, but how much do you know about it? It affects not only older women – it can strike at any age, and one in five people with osteoporosis is male. An estimated 44 million Americans are either at risk for this disease, or already have it. Might you be one of them?

What is osteoporosis?

The word “osteoporosis” means “porous bone.” Bone is living tissue, like your skin. Just as your skin cells die and are replaced by new cells, your body constantly breaks down old bone and replaces it with new bone tissue. As we age, existing bone cells are reabsorbed by our bodies more quickly than our bodies can replace it. The spaces within our bones grow larger, and the outer shell of our bones grows thinner. Our bones lose minerals, mass, and structure. For people with osteoporosis, the bones eventually weaken to the point that they break very easily.

Between the ages of 20 and 30, most people acquire their peak skeletal mass. The greater a young adult’s bone mass, the more likely he or she will be to have a high bone mass as an older adult, and the longer it will take for bone loss to reach dangerous levels.
Assess your risk
White, Asian or Hispanic women who are post-menopausal are those who most often suffer from osteoporosis. Additional risk factors include having:

- A small body frame and being thin
- A family history of osteoporosis or broken bones
- Early menopause
- Broken bones as an adult
- One’s ovaries removed before menopause
- Periods of extended bed rest

Some medications can also contribute to a loss of bone density, as well as medical conditions such as anorexia nervosa, rheumatoid arthritis, and low levels of estrogen (and testosterone, for men).

While these factors are largely beyond your control, diet and lifestyle choices also play a large part in determining whether or not a person will develop osteoporosis. Smoking, heavy drinking, and an inactive lifestyle are bad for your bones, and a diet low in calcium and vitamin D, and high in sodium, protein and caffeine, will make it difficult for your body to rebuild bone as it breaks down naturally.

How do I know if I have osteoporosis?
Osteoporosis is a symptomless disease, and many people do not know they have it until they break a bone. A stooped posture or loss of more than one to two inches of height is caused by spinal fractures, which can sometimes occur without pain. And hip fractures nearly always require major surgery and hospitalization. Nearly one in four hip fracture patients over age 50 dies within the first year following their fracture, and only 15 percent of patients can walk across a room unaided six months after the fracture. Osteoporosis is the underlying cause of most of these fractures.

If you have risk factors for osteoporosis, your doctor may order a bone mineral density (BMD) test using a central dual energy X-ray absorptiometry, or DXA. The results will reveal whether you have low bone density before a fracture occurs, and can predict the chances that you’ll have a fracture in the future. With this information, you and your doctor can decide what steps to take next.

Prevention and treatment
If you have low bone density, your doctor may recommend a medicine that will slow your bone loss or help rebuild your bones. But if you have not already developed osteoporosis, your physician will recommend preventive measures including:

- A diet rich in vitamin D and calcium, which can be found in lowfat or nonfat milk, cheese, yogurt and other dairy products; dark green leafy vegetables; nuts; and foods that have been fortified with calcium, such as orange juice and cereal. See “How much calcium do you need each day?” for recommendations on your daily calcium intake.
- Regular weight-bearing exercise
- Quitting smoking, if necessary, and limiting your alcohol and cola intake.

How much calcium do you need each day?

<table>
<thead>
<tr>
<th>Ages</th>
<th>Amount mg/day</th>
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<tbody>
<tr>
<td>Birth to 6 months</td>
<td>210</td>
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<tr>
<td>6 months to 1 year</td>
<td>270</td>
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<tr>
<td>1 to 3 years</td>
<td>500</td>
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<tr>
<td>4 to 8 years</td>
<td>800</td>
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<tr>
<td>9 to 18 years</td>
<td>1,300</td>
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<tr>
<td>19 to 50 years</td>
<td>1,000</td>
</tr>
<tr>
<td>51 years and older</td>
<td>1,200</td>
</tr>
</tbody>
</table>

Source: Dietary Reference Intakes for Calcium, National Academy of Sciences, 1997

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1 National Osteoporosis Foundation (2008): nof.org
2 Centers for Disease Control and Prevention, Calcium and Bone Health, (December 3, 2008): cdc.gov
4 WebMD, Osteoporosis Health Center, (November 23, 2008): webmd.com

Resources
For more information, visit the National Osteoporosis Foundation online at nof.org. There, you’ll find a questionnaire to help you determine your risk factors.

To help your kids get the nutrition their bones need, check out bestbonesforever.gov, a site devoted to encouraging preventive behaviors among girls and teens. The parents section of the site contains recipes, a calcium calculator, printable grocery lists, and tips for convincing picky eaters to get the calcium and vitamin D they need.